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the latter... We are familiar enough with the Bambara agricultural customs, but none of them would have brought about the spread of the balanzas, their regular spacing in the fields, and their protection from goats. In almost all the cases we have observed, the balanzas are of considerable age, development and density. There lies in this subject a fine dissertation topic for a young ethnographer and naturalist." (pp. 135, 136).

The myths of the Bambara answer M. Roberty's questions.

/39/ Mousso Koroni

776 Mousso Koroni is the impure earth; she symbolizes all that is opposed to light: darkness, night, witchcraft. She is also the symbol of rebellion, disorder, and impurity. Pemba pursued her in vain in his effort to take back what he had given her: the "words" she had received from him were divulged to men in spite of him.

Although no cult honors her and no sacrifice is offered her, her name is cited in various ceremonies and mentioned in the chants; her actions are recalled by certain gestures in the ritual.

776 304 On the other hand, she is the initiator of the separation of the sexes realized in the human body by the removal of the foreskin and the clitoris, an operation which after her betrayal, she performed on all those she met. In this way, she placed them in the same state of rupture in which she found herself: a female principle as opposed to Pemba, the male principle. In addition, she is present in every human being in the form of an evil force, the wanzo, which she had communicated to all those she approached, and of which one must rid oneself through the methods she herself inaugurated: circumcision and excision (1).

1. See p. 95.

776 241 Mousso Koroni is also the originator of certain agricultural techniques which she taught men, and every year, in certain villages, she

776 241 is represented as making her nocturnal visitation at the time the grain is threshed. An old woman, dressed in rags, wearing old unmatched sandals, and carrying broken gourds, runs about the countryside simulating madness. She follows the mythological itinerary from west to south and from east to north, and then returns and sits down near the granaries (1).

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1. However, the very first agricultural techniques known as fyɛ̃ ti (literally, cultivation of the wind) are recalled, particularly among the Bozo, by random sowings of a certain number of wild grasses, then cereals, in the fields where the harvest is offered to Faro. Similar rituals are celebrated in certain Bambara villages. The techniques taught by Mousso Koroni came after those "of the wind," and precede that of millet cultivation.

For information on some agricultural rituals of the Bozo, see G. Dieterlen, "L'Agriculture rituelle des Bozo /Ritual Agriculture of the Bozo/," Journal de la Société des Africanistes, Vol. 20 (1950).

776 857 Mousso Koroni's agricultural work and her unhappy wanderings are also represented in a children's ritual, carried out at night during the cultivation period. One of the players, the yukuri or dantoni (literally, little hunchback), wears sandals for ears, a hump at the small of his back, a cloth tail tied low about his waist. He goes begging from /40/ door to door, followed by all the uncircumcised of his neighborhood. He pretends to cultivate and to thresh grain while his companions intone chants recalling Mousso Koroni's mythical actions. After his round is finished and the presents of millet are gathered, the player, pursued by all the others, runs off and disappears amid catcalls.

776 241 783 But while this parody of cultivation, with its rituals and chants, recalls the phases of Mousso Koroni's disorderly life, the agricultural techniques she initiated earlier are in themselves an important expression of the reparation made to the confusions she had caused. Every hoeing by the farmer is a wound inflicted on the impure earth,

776 hence on Mousso Koroni. The ritual cultivation of millet, a noble
241 activity to which every aristocratic Bambara must dedicate himself,
783 is an institution which Faro taught in his time and constitutes a purification and a reordering of the soil (1).

1. Dugukolo be be dyuruma, "the whole earth is impure." But as only virgin soil is considered impure, it is also said: dyurumu be be dugukolo ka forow sani nyala do, "the whole earth is impure except for the cultivated fields." The word dugukolo (literally, bone of the earth) designates both the earth as a whole and the earth as matter. The same notions concerning the impurity of the earth hold for the Dogon. See M. Griaule, Dieu d'eau, p. 94.

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Faro

Faro's Shapes

776 Faro was a "voice" before he materialized into a body. In his role as master of the word and reorganizer of the universe, he is represented by a spiral, munu, in which he occupies the point of origin at all times. The spiral is situated in the center of the cardinal points (2). Its vibratory unrolling represents "the displacement of

2. This "central point," which is also the firmament, is described by the Bambara as sa tyema kolo, literally, the bone of the middle of the sky.

Faro for the realization of all things in the universe."

776 This image is materialized in a basketry headdress, yugu, with a
292 spiral of eight turns. The straw sprigs that form the spokes supporting the spiral symbolize the vibration; the intervals, yugunye or eye of the yugu, which separate them are rays of light, the spiral representing

776 773 At death, he takes back the spiritual principles of the diseased and preserves them in water so as to reintegrate them into another body, thus using forces which are eternally reusable. The product of the "shedding" (mana or folo) of souls which remain on the altars is for him in a way of constantly verifying the account of those living and dead who are entrusted to him.

On earth, men are indebted to him for all they possess. He gave them language, an expression of thought, and taught them its usage, having warned them against the misuse and evil use of words.

The techniques of survival, another expression of "Faro's words," so necessary to their lives since they have to provide the means for their existence, were revealed to them by the spirit. He helped them with his sovereign power, either by directly providing them with new tools, or by inspiring some of them to develop new techniques by putting to use observed facts. In this way, he gave the Bozo fishing nets which enabled them to catch the first recorded animal food, the fish; likewise, he encouraged among the Bambara the discovery of weaving through observing the spider's web.

He also gave men certain seeds which became the origin of farming, such as cotton and fonio, both of them being known before millet and the other cereals.

As proprietor of cowrie shells and metals, he is the master of wealth, distributing it as he pleases. Thus, one who owns precious [782] metal is responsible to Faro for it and owes him a part of one's earnings. For this reason many offerings are made by throwing gold or copper into the river.

776 341 Faro's deed is essential where the Bambara's main activity, agricultural work, is concerned. Every man with dignity and nobility must cultivate the earth in order to honor Faro. Each stroke of the hoe is a wound inflicted upon the earth and a punishment for its impurity. Each stroke of the hoe humiliates Mousso Koroni and purifies the earth. Faro watches over the soul and the vital force of the seeds. Only he can provide rain necessary to germination, for rain contains the soul, (ni) of the cereal grains as does the water of ponds and streams which one collects in case of drought.

776 774 241 Millet receives its soul as soon as it gets the humidity of the earth, and from that time on, it accompanies the various stages of germination with utterances which, at the beginning of the world, could be heard. As soon as /54/ it has received the rain, the seed splits and says: "My place is assigned." Then the sprout comes out of the earth

776 with the words: "May I be protected." Finally the growth of the stem
774 is accompanied by a third utterance: "May I be obeyed" (1). It pre-
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1. These are the three formula:
ndyora, nga kolosi, nga bunye.

serves its soul until full maturity, that is, the moment is is harvested. When the harvester's blade cuts the spike or the cluster, the plant sends its soul into Faro's realm with these words: "Iron is forbidden my grain; soul, go away to the house of water" (2). Thus deprived

2. Neke ye nkise tne ye, ni, ta dyi so la.

of its soul, the millet becomes suitable for eating and it says: "If I were not dead, I could not be eaten; my breed cannot be lost: whether or not I am eaten, nothing can reduce me for my soul is in water" (3).

3. Ni ná sale te nti dũ, n šia tise ka tunu,
ndunaw ma dũn wo, fẽ te bwona, ni be dyi la.

776 Many agrarian rituals are celebrated in order to assure Faro's pro-
241 tection. The high quality of the first fruits of the harvest offered to him indicates the importance of his role. It is in fact a payment made to him for the past harvest and in anticipation of the harvest to come.

776 He is also the guardian of the artisan's skill. The first object forged by the young blacksmith and the first spindle of thread woven by the young weaver are brought to him. Through this gesture, the individual entrusts him with both his work and his manual dexterity. After Faro has seen the work, he does not let the worker forget what he has learned and will help him perfect his skill.

Faro is a judge. Those who break the rules he has made are the object of his righteous wrath: those who are drowned or struck by lightning are always persons who have broken a taboo. Men submit most difficult cases to him as a last resort. Through the intermediary of the agents of different rituals such as the intermediary of the diviners, he answers requests and "settles the words." Most prayers
776 are addressed to him and in many cases the invocations end with his
782 name. He is omnipresent, invoked everywhere, and the seat of his power, as of all others, is the seventh heaven, to which the Bambara

B. The Altars

778 794 Each family head wears a small altar called kere la boli ni (literally, little side altar), which maintains relations with the souls of the members of the family for which he is, in part, responsible. /132/ In case of illness he offers sacrifices on this boli for the recovery of the patient. In case of death, he keeps the soul in it temporarily before carrying it to the collective altar of the Komo (1). He also sacrifices on this altar at the time of sowing.

1. The society, the altars, and the role of the Komo are described on pages ff.

[763] If the family head is himself very ill, the altar is placed on his head in an effort to replace the soul which is escaping with that which the altar contains. If he dies, it is placed on his chest to take in the [764] soul which is then transported to the sanctuary of the Komo. At the end of seven days, the object is given to the deceased's eldest son who, upon becoming family head, sacrifices two goats to the Komo on this occasion.

The čuafebla (literally, worn at the hip) is made by a father for his son when the latter attains maturity and is on the point of leading a man's life, farming his own field and founding a family.

If there is no Komo in the village, the father may make it earlier, right after the name-giving ceremony.

The altar is made of hyena tails, scorpion tails, and whole peppers tied with a little stick; it represents the owner's flesh and blood.

It receives an annual sacrifice at the time of sowing after the collective offering tothe Komo. This takes place in the family courtyard in the presence of all the members of the family (2). Moreover,

778 794 773 241 2. The cult rendered on this altar brings the intervention of the Sago spirit whose agricultural role is still obscure at the present stage of the inquiry. He taught men how to water their fields.

"Two birds konodyanfi began to circle and sing above the workers in the fields;

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the latter abandoned their hoes in order to watch them. The birds fetched water with their beaks on the shore of a neighboring pond and returned to pour it at the foot of a millet stalk, the ear of which was not yet formed. The men put a mark on this stalk in order to recognize it and later observed that it produced a finer ear than the others. Imitating the bird, they dampened their plantings and watered their fields; their harvest was considerably improved by it. They kept up this habit and, in acknowledgment, produced a cult to the Sago spirit whose emissaries the birds were and who comes to slake his thirst at the Čuafebla."

778 it is the object of sacrifices when important business is being handled:
794 marriage, private or administrative action, fight against an epidemic.
[428] A son may inherit his father's altar and keep it with his own which he wears tied to his hip.

The Čuafebyčni (literally, little horn at the hip) is composed of a cowrie, taken from Faro's granary, copper which is the altar's soul /133/ (ni), pepper, charcoal, and honey. This mixture is introduced into a ram's horn decorated with cowries at its opening and often wrapped in a red cloth bearing the same ornamentation.

[782] The altar is consecrated on those of the Komo, over which it is passed seven times. The throats of victims are cut, their blood is collected in a gourd, and the boli dipped into it three times before being taken out in the sun to dry.

Its role is one of protection. Its owner carries it during the Komo ceremonies to defend himself against spells, korti, which may be cast by someone in the audience.

It also maintains the integrity of its owner's forces. If the latter faints or goes into a trance, he is returned to his normal state by completely renewing the ingredients which constitute it. When the horn is emptied of its contents, "both the soul of the altar and that of the man" are removed. The container is rinsed out with water from the

776 778 823 783 the word, is offered as clothing, and the eggs are offered as purification. As for the ashes, it is the ideal pure element since fire has "removed" its tere from the wood; here it represents the man from whom "the bad force acting on his tere has been removed" (1). Whoever murders an

1. See pp. 90 ff.

animal proceeds in the samw way with the animal's hide upon which he throws cowrie shells. In both cases, the spirits absorb the tere and nyama, which add to their own forces and free the culprit.

Collective purifications are carried out on the dangu when sexual taboos regarding cultivated fields and bush are broken. The impurity [833] resulting from copulation performed outdoors is communicated to all the land belonging to the village; the trees in the bush will no longer bear fruit; the harvests will deteriorate. Formerly the two lovers [684] taken by surprise were deprived of their clothing which was burned on the dangu after they had circled the village three times starting at the left. The culprits were then banished. At present, if the plight of the fields suggests that such an act has been committed, all varieties of cultivated seeds are gathered in a basket which is placed at the cross-roads. Then, all the villagers and their domestic animals circle the village three times while sham battles take place between men mounted on horseback. After a sacrifice offered at the dangu, the seeds, thus purified, are sown.

776 778 823 241 Offerings are made to the spirits of the crossroads at the time of sowing to invoke their protection. This ritual is obligatory for whomever sows cotton, since this seed was given to men by these spirits. The farmer places the seeds, sits down facing west, and cries out three times the name of the dangu above the seeds. He leaves three small piles in homage to the spirit along with fibers from the plant, and kills a victim before proceeding to sow his field. When the stalks are up, he cuts some boughs and returns to the place of sacrifice to sweep up the seeds, thus impregnating them with the nyama of the dangu. He then dries them, grinds, sifts, and mixes them with earth picked up on the same spot. In his field, he shouts /141/ the name of the dangu and throws the mixture with all his strength in the direction of the cardinal points, the zenith, and the ground. When the plants are mature he picks the first seven ripe seeds, brings them to the same place, and offers a sacrifice of thanksgiving.

776 787 attend his burial despite the fact that the rituals have not been performed. If not, he is abandoned to the care of his family.

764 775 To neglect the rituals assuring life in the beyond and the security of the living causes the shadow ǰu dya, or the ghost ǰu kere dye (literally, white side of the dead man), to arise and present itself under the same which the dead man had on earth, to claim his due from his descendants.

Ancestor Cult

769 778 In the entryway of some residences a supporting stake (cɛ̌ dloma), sometimes marked by seven notches, represents the founding ancestor of the family. On the anniversary of his death the stake is oiled "to refresh his soul." In addition, each year the owner of the house sacrifices to all the ancestors on the family altar, on the stake, and on the threshold of the door. In some villages the ancestors are called upon by tapping the threshold with a little wooden hammer, dyele kala ni, which represents them.

In the courtyards, pieces of wood stuck in the ground (ǰigi semen dloma) represent the paternal uncle, the brother of the founder, and are used as seats for the heads of families who lean against them "in order to lean well upon the traditions." Farmers, before leaving for the fields, rub their hoes on them to show them to the ancestors.

769 241 Before planting the women give the head of the family a ball of raw millet, which he lines up to represent the dead according to age and rank. Then he gives them a pinch of the seed beginning with the one representing the most recent deceased and calling successively all the dead by name. The paste and the seeds are then put in water and the mash thus obtained is poured on the /196/ doorposts to the entryway of the family house upon which the blood of a sacrificial victim also is poured. When the planting time comes, the chief who has prepared the mash made with a few grains taken from the seeds distributes this to the women, beginning with the one who represents the oldest deceased. He asks the ancestors to watch over, during the germination period, the soul of the millet which will descend into the seed with the first rainfall. When the millet has reached maturity, the first seeds harvested are placed in a pot on the threshing floor where the grain will be threshed later, and are distributed to the women in the same manner as the rime of planting, the oldest of the deceased having to receive the first of the seed.

364 778 796 the chief throws dust three times to the four cardinal points. The masker then stands in the wind in such a way as to receive the smoke; the chief and the members crouch in line behind him with their mouths open to inhale better. When the wind changes its direction they all move to continue this fumigation, wusuli, which constitutes a purification as well as an increment of forces. At the moment the fire is almost out, the most courageous of the participants stamps on it in order to assimilate better the nyama which it exudes. The ashes, [804] gathered by the chief, are distributed, the unit of measurement being the gourd mure. An important share goes to the nyama boli, another is given as an offering to Faro, and a third is distributed among the members.

Several days later, the group goes to the river bank to the sound of drums beating out the murumuruw foli (literally, rhythm of the refuse); they throw the ashes reserved for Faro into the water and, continuing to dance, return to the village.

364 778 252 Those ashes given to the members are used to prepare the potass which is mixed into the millet cake, the daily food of the Bambara, and which will make the members of the family share in the powers contained in the nyamanto.

364 778 The eating of this mixture closes the cycle of the transfer of forces, which were temporarily communicated to the refuse by the individuals, then recovered by Faro, and finally redistributed to the social body.

III. Rain Rites

789 241 At the time the first work is done in the fields, a drawing is made with millet mash upon the tree of the Kworè in the shape of a lozenge inscribed within a rectangle, which represents "the great fire which issued /204/ from the cardinal angles" at the time of their creation. While this is being done, the following words are spoken: "The four elbows (the lozenge) are the fire of the angles; here is the anniversary of the Kworè." The clearing of the field or the first plowing always symbolizes the very first clearing obtained through fire.

789 796 794 During the month of May, the members of the Kworè society make sacrifices upon their altars before the first rumbling of thunder in order to purify the first sky where clouds are formed from the impure passage of Mousso Koroni. The chief gathers the members about the tree and recites the following prayer:

132 of high water, part of the narrow plains bordering the river are inundated.

133 At the pass of Bamako the cliffs on the left bank are close to the river and hem in the city. The pass is marked by the appearance of rapids (Sotuba, Kénié), for the river meets for the first time the [20] sandstone it cuts through. The water is highest at Bamako around September 22 and begins to subside towards October 15. It is lowest around April and May.

137 The vegetation is quite unvaried. Species of great forest trees are found in the ravines of the mountains to the south; the small Sudanese forest covers the whole Niger region up to Bamako where the layer of laterite is thin. It is a forest of deciduous trees; the trees shed their leaves, and flower in the middle of the dry season while they are still bare; then the leaves appear before the return of rainy season which marks the awakening of the herbaceous plants. Let us note particularly the karite [shea] tree (Butyrospermum Parkii) which is the most widespread and characteristic of the Sudan; the néré (Parkia biglobosa); the téli (Erythrophloeum guineense); the lingué (Afzelia africana); the caïlcedrat (Khaya senegalensis), as well as enormous gramineous plants of the Andropogon family which are more abundant in the humid depressions than on the plateaus.

[134] However, large areas covered with a layer of laterite are bare except for some scanty gramineous plants: this is the "bowal." These immense iron flats, barren of humanity, make excellent hunting

136 grounds. Buffaloes, panthers, Derby's elans, various kinds of monkeys, elephants, antelopes, lions, wart hogs, hippopotamuses, and crocodiles live there. The glossine (tsetse fly) abounds in the same region.

241 Between these immense, desolate bowals grow rice, millet, and fonio (Digitaria exilis), the most wretched of the world's cereals and the most important for ritual purposes.

133 In the valleys, outside of the beds of laterite gravel, one finds the small forest or cultivation in newly cleared places and prairies are found in the sections that are annually inundated.

B. The Ségou Basin

This is a plain framed by the sandstone of the Manding and Dogon plateaus, by the Goundam range and the range south of the Dehar near Bassi Kounou.

3: PPeques--32 S-4 (no date) 1954 FA8 Bambara FA8

[27] CHAPTER 4

PRINCIPAL ECONOMIC TRAITS

I. Agriculture

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Among the Bambara "farming remains extensive [as opposed to 'intensive'] . It has not, generally speaking, passed the quasi-primitive stage where a man's labor, without the aid of modern techniques, produces little and, usually, badly. The climate is hard in the tropics, making physical effort taxing, and the naturally rich areas are rare and scattered. Finally, industrialization is only just beginning in West Africa, and in that field, as in the related one of producing hydro-electric power -- of capital importance in a country where all coal must be imported -- the stage of the schoolroom has hardly been passed." (1)

1. Georges Spitz, Sansanding.

A. Methods of Cultivation

We may distinguish three principal methods of cultivation, which apply respectively to vegetable gardens, to fields bordering water courses, and to fields in the brush.

The vegetable gardens are arranged around the huts and are worked by methods of intensive cultivation, using domestic refuse and irrigation, with no fallow land. They are meticulously cared for by the women. Each parcel of land is knowingly exploited by layers of crops, root crops and high plants which draw on the soil at different levels. These village gardens are designed to provide the carry-over between harvests. Millet, maize, tobacco (mid-August), etc., are cultivated in them. They are surrounded by productive trees.

The most fertile fields border water courses, where the land is easily irrigated. These small fields are generally worked by the women for raising rice, cotton, onions, and fruit trees.

241 Lastly, the furuba are veritable brush fields where wide, extensive, and cyclical cultivation is carried out, the brush being cleared by burning. During the dry season, the trees are cut at 0.70 meters or 1 meter from the ground [28] without removing the stumps, so that the subsequent fallow period may be brief. The cut branches are piled by the stumps. After drying, the grass is set on fire. On old fields, millet stalks and high grass are piled up before setting the fire; then the ground is superficially loosened by hoeing, and the ashes are mixed into the soil. The first year millet and peanuts are sown, during the following years less rich crops until the soil is exhausted (by manioc).

The preparation of the soil and the sowing must be done very rapidly (in about three weeks or a month) at the beginning of the rainy season. Sometimes the farmer must hastily sow an insufficiently prepared field, being obliged to transplant later. Sowing time is [82] determined by the appearance in the sky of the Pleiades, which the Bambara call "the hen and the chicks." In the Macina region the sowing begins at a certain village and follows a route going successively from the south northwards, in a zigzag movement corresponding to the appearance of the rains.

In the brush fields, maize is planted, then fonio and coarse millet (sorghum), peanuts and small millet (Pennisetum), etc. (see below). In the fields, monoculture is practiced, or else the cultivation of associated crops: for example, black-eyed peas (Vigna unguiculati walp = V. Catjang) and okra (Hibiscus esculentus) with millets and maize; the da sauce (Hibiscus sabdariffa Linn) with fonio (Digitaria exilis); peanuts with underground peas. In some fields these crops are associated: millets, maize, black-eyed peas, cotton, underground peas, peanuts, sweet potatoes, manioc, and okra (each plant exploiting the soil at a different level).

Sowing is always preceded by familial sacrifices and general rites.

Harvest time is determined by the vegetative period of the plants, without regard to their apparent ripeness. Thus, errors often result when new varieties are introduced by the administration. Accordingly, the harvest date for peanuts, sweet potatoes, and yams

241 may be set too early, and no amount of advice to be patient will retard it. However, for the millets, fonio, and rice, the visible characters of ripeness are known and respected (opening of the husk in the case of millet, color and bowing of the spike in the case of fonio and rice).

242 824 When a field is exhausted, it is allowed to lie fallow, and another terrain is cleared of brush, sometimes several kilometers from the village. A field is recognized as being exhausted when a variety of plant known as sege (Striga senegalensis Benth) appears spontaneously; when the soil is reconstituted and regains its richness, tiekala (Cymbopogon giganteus Benth) and wägha (Andropogon Gayanus Kunth) appear, which indicates that the field may again be cultivated. Thus, the fields are rotated around the village that cultivates them, 342 following a cycle which may last 20 years. Temporary dwellings are set up near the fields under cultivation, and the farmer lives there during the work with each of his wives in turn.

[29] B. Food Crops

243 The Bambara cultivate food plants and textile plants. Millet is the basic crop in the savanna. The pénicillaires, small millet (Pennisetum typhoïdeum R.), are cultivated very far north. Their types are characterized by the length of their vegetative cycles, which vary from 65 to 140 days. In general, they are sown in a rather light soil at the beginning of the rainy season. The grain is put in the ground, without preliminary working of the soil, in holes one pace apart and a few centimeters deep. A pinch of seed is put in each hole, and one to three subsequent workings are given the soil; the first, 15 days after reaping, the others in July and August. The yield varies from 350 to 1,000 kilograms per hectare.

The sorghums (Sorghum vulgare) include a considerable number of varieties with vegetative cycles varying from 120 to 150 days. M. Vichon has collected 11 samples of sugar sorghums, 132 of late mid-season, 87 early, 138 of transplants. M. Creak divides the sorghums into three types: with full, compact, conical spikes; with elongated spikes and more detached spikelets; with very elongated spikes and with spikelets even more detached from the axis. A third

248 into narrow bands by weavers [men] who make clothes from it in.
286 unbleached, indigo-blue, yellow, or black fabrics. At the present time, after numerous attempts at improvement since the occupation,
[654] seeds selected according to the zones of cultivation are distributed to the farmers, and the administration encourages industrial cotton cultivation in irrigated regions, as well as mechanical spinning and weaving.

248 Sisal is an agave of Mexican origin. The long, thick, pointed
[107] leaves, after undergoing a series of industrial operations including mechanical extraction of the fibers, yields very strong textile fibers suitable for cordage, rope making, rug manufacture, canopies, etc.

Kapok (Eriodendron anfractuosum) until a few years ago was merely gathered, but now plantations have been created. The fruit is in the form of capsules containing seeds enveloped in a vegetal wadding. In one year the kapok tree can furnish 30 kilograms of fibers used in mattress-making, hat-making ...

D. Agricultural Tools

24 Bambara farming tools are very simple. The hoe is almost the only agricultural instrument used. There are several kinds of hoe, particularly in the Bougouni region: the tyerengu, 0.50 meters wide, with a straight handle (chiefly used by the Sénoufo); the n'gu kala, 0.30 meters wide, with a curved handle. These two are used for digging, scraping, and banking. The flotton, from 0.10 to 0.20 meters wide and with a handle made from a forked branch, is used for the second dressing of the earth and for weeding. (When the weeds are too big, the weeding is done by hand). These hoes oblige the peasant to work stopped over. Let us also mention the axe, dyeli, which serves to cut shrubs and the branches of trees in clearing land, the machete, and a small pickaxe with a hoe handle, the yalo.

[33] Millet spikes are harvested with the aid of a special small knife to cut the stalk into pieces. Finally, the threshing of the ears is done with large bent sticks having round handles and flat ends.

[533] Agricultural labors, tillage and threshing, are undertaken
[461] collectively following the cadence indicated by an instrumentalist. Work in the fields is generally done by starting at the bottom of a slope and working up, so the rain will wash off the weeds. The

241 threshing of millet is done on the village threshing floor, facing west.

Attempts have been made to substitute the plow for the hoe, but with indifferent success, for deep plowing of these fragile soils brings the laterite bed of the subsoil to the surface, resulting in the final ruin of the fields.

The Bambara have no organic fertilizer other than household wastes, except in some regions where the shepherds lead their flocks onto the stubble after the harvest. Although only superficially worked, the soils are quickly exhausted and must be abandoned after a few years. Clearing the land by brush fire has the drawback of progressive deforestration.

E. Production Statistics

241 433 As statistics are established by circles or by administrative centers, it is impossible to give precise figures on the volume of agricultural production which may be attributed specifically to the Bambara. However, since the Bambara constitute the vast majority of the population in certain circles, it is not without interest to furnish some figures on Sudanese agriculture. It must be pointed out, however, that the acreage under cultivation in the country cannot be estimated even approximately. The statistics established by the circles or administrative centers are founded on approximations so vague that it is not even reasonable to take them into consideration.

As an indication of this, we may cite the figures furnished by the administration of the Bougouni circle. The estimates are calculated on the probable number of workers in a region, to each of whom is attributed a field of theoretical acreage. Three-fourths of the production is assigned to millet and the rest to regional crops. The average yields per hectare calculated in this manner may give a probable indication of the quantity harvested, but they cannot be verified in any manner.

3: Paques--41 S-4 (no date) 1954 FA8 Bambara FA8

Production According to "Le Guide A.O.F. (1950)"
[The French West African Guidebook]

Bamako

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Export Products -- Karite, peanuts, 11,700 M.T. [metric tons]; sisal, 300 M.T.; cotton, 20 M.T.; tobacco, 35 M.T.

Food crops -- Millet, 92,256 M.T.; maize, 11,200 M.T.; rice, 4,917 M.T.; fonio, 200 M.T.; yams, 1,000 M.T.; manioc, 2,600 M.T.; potatoes, 1,506 M.T.; sweet potatoes, 3,810 M.T.; beans and onions, 15,200 M.T.; peas, 8,420 M.T.

[34] Ségou

Exports -- Peanuts, 10,000 M.T.; rice, 6,000 M.T.; kapok, 600 M.T.; karite almonds, 1,000 M.T.; butter, 100 M.T.; gum, 20 M.T.

Production of the Niger Office -- Rice, 10,000 M.T.; cotton, 1;300 M.T.

Food crops -- Millet, 15,400 M.T.; maize, 1,000 M.T.; fonio, 4,200 M.T.; peas, 2,600 M.T.; beans, 1,600 M.T.

Bougouni

Exports -- Karite butter, 100 to 600 M.T.; peanuts, 500 M.T.; millet, 1,000 M.T.; wax.

Food crops -- Millet, 40,000 M.T.; fonio, 10,000 M.T.; rice, 6,000 M.T.; maize, 5,000 M.T.; peanuts, manioc, yams, sweet potatoes. (Charts on following pages.)

II. Animal Husbandry

A. Methods of Stock Raising

439 The Bambara are a sedentary, agricultural people; they have a symbiotic relationship with the Somono and Bozo, who are fishermen and sailors exclusively, and with other semi-nomadic peoples like the Peul who are shepherds.

561 and religious life). The young men of the same soli form what is called a flambolo. Three consecutive classes of flambolo form a flanton. The women have a parallel organization. Each fulani is a ton-den (child of the ton), with a corresponding association.

561 The association's role, apart from the seasonal celebrations and the copious feasts, accompanied by a great deal of drinking, is ●241 that of a mutual aid society and of a veritable village work cooperative. 476 It is organized, administered, and articulated with a view to the agricultural work. The chief, kariku, expedites current business, with the assistance of a syere (witness, deputy). He has a treasurer who receives offerings and makes payments, the femmaraba (he who preserves things), plus an honorary president and an adviser, chosen from among the notables and delegated by them; he must supervise the society and orient its activities.

This social organism rests, in the last analysis, on the exchanges of services initiated and supported by the kariku. He sees to it that help is forthcoming to a man making the customary work payments in the fields of his parents-in-law or future parents-in-law (in exchange for food and drink furnished by the parents-in-law to these ton-den). In like manner, a farmer asks the kariku for help in clearing a field of brush. This request is made through an intermediary or a sénanku who [58] accompanies the request with ten kola nuts. The chief accepts the present and calls his council into session to study the affair technically and to fix the salary. The same procedure is followed for the winter weeding, which calls for rapid completion, as well as for building dams, irrigating canals, paths, roads suitable for carting, etc.

An analogous system exists for the female kari, for sowing the crops as well as for gathering the harvest, mutual domestic aid, etc. The two groups collaborate for the seasonal celebrations.

643 d. The Fama. -- We see that the canton is a grouping formed under the authority and influence of a dominant family. Its unity is determined by political, social, and religious laws which regulate it. The fa or head of the dominant family becomes the Fama, that is, the patriarch, chief of the canton. He then often renounces the administration of the faya, which he turns over to his second (syere),

b. Organization of Work

241 621 Work on the land is the only kind of work suitable for free men, for to work the land is to purify it. All agricultural operations [622 are set in motion by the dugu-tigi and are regulated by the fa who 591] assigns tasks by age classes. Each member of the community must work for it every day, except Monday and Thursday, from dawn to about 4:30 p.m. He may be helped, or even replaced, by his children and his captives. The rest of the time he may work for himself in his personal field or in the little fields situated along the water courses and the rivers, which are not periodically redistributed and are considered almost as personal and hereditary property. The fruit of this labor constitutes the personal savings of the community member.

316 423 The exploitation of the subsoil is governed by other rules which we still know only imperfectly. Like the soil, the subsoil belongs to the master of the land. Iron ore was extracted solely by the [324] blacksmith who paid the master of the land a rent in the form of hoes or axes. To exploit the gold mines, thousands of natives went in family groups to the placers at the beginning of the dry season. [63] The location of the placers was determined by the priests and changed every year. The men dig multiple small holes very close to each other, which may go very deep depending on the depth of the barren layer. When the calabashes of gold-bearing earth are brought up, the women wash the earth. The placers are abandoned at the beginning of the rains after three or four months of exploitation. Before the French occupation, gold was the exclusive property of the Fama and could in no case be the object of commerce. To- [439] day, gold is generally sold at the placers to Syrian, native, or European merchants, who have established veritable shops at the mining centers, shops which contain everything necessary for the miner's life.

463 554 The exercise of a profession other than the cultivation of the land is reserved to artisans who are accorded the insulting name of nyaman-kala, for only work on the land is noble work. These artisans form separate families in every Sudanese society, which has caused Europeans to call them, improperly, people of caste. They are divided into independent guilds.

462

Men	Women	Common Tasks
Making arms and tools		
Hunting		
Agriculture: Clearing brush, hoeing, harvesting, constructing granaries and drying sheds.	Agriculture: Collaboration with men on these tasks; the men do work requiring strength. Sowing.	Agriculture
Handicrafts: Stone, wood, iron, copper, basketry, weaving, sewing.	Handicrafts: Basketry, plaiting or spinning, pottery, dyeing scents, perfumes.	
Construction and maintenance of the house	Construction and maintenance of the house	Construction and maintenance of house
Commerce	Commerce	Commerce
Raising domestic animals	Preparation of food, plus wood and water	
	Keeping house	
	Raising poultry	

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462 Labouret hastens to add that there is close collaboration everywhere. Thus, when the husband fells the trees and cuts them up, the [68] wife and daughters pile the branches and burn them in a corner of the field. Then, when the earth has been turned by the men with their large hoes, the women break up the clods, level and loosen the soil for sowing.

241 462 [411] [401] After the men have cleared the big weeds, the women come along to finish up. At harvest time, the women and children chase the birds from the fields with loud cries, sling shots, and by heating bamboo on a hard rock to cause a detonation. All chase the sparrows, partridges, guinea-fowls ... Harvesting is done together ...

In addition, by the side of the men's fields there are little women's fields where the women cultivate sorrel, okra, eggplant, tomatoes, beans, and all the condiments. The accessory crops of the women are the raro, bananas, manioc, sometimes rice or peanuts (1).

1. Labouret, Paysans noirs [Black Peasants].

241 565 567 Naturally, the work varies according to the social order. The Bambara divide themselves into free men, people of caste, and, formerly, slaves, all having a chief at their head. All members of the community must work the land; in fact, the poor work more than the slaves. The more fortunate do little work; they formerly directed and controlled the work of the slaves, today that of the agricultural workers.

C. Legal Procedure: Inheritance, Land Ownership

692 In Bambara country today, as in all of French West Africa, justice is dispensed by two tribunals: that presided over by a justice of the peace for important affairs, and that presided over by the administrator for other cases. The justice of the peace renders justice following the French code; the administrator according to local custom. A chamber of the Court of Appeals of Dakar is represented at Bamako, whose jurisdiction includes the Sudan and Niger territories. The Assize Court holds a session at Bamako, which also possesses an inferior court. Justices of the peace of wide jurisdiction are found at Kayes, Gao, Mopti, Ségou, Sikasso, Bougouni; other justices of the peace with wide jurisdiction have been created and will soon take up their functions.

One easily imagines the conflicts of principles and method which may arise between the two sorts of tribunals have just indicated.

a. Urbanization

166 177 369 The Bambara, who are essentially agriculturalists, have no cities. All the cities owe their origin to the Whites and were created for commerce, administration, industry, banking, and education. But the city has exercised the same attraction on the Black peasant as it has on the French one. This taste for city life has been made easier to indulge by the creation of railroads and roads. Cities, such as Bamako, are invaded by ever-increasing populations who leave the bush and the close-knit community to create a de-tribalized mob which adapts more or less well to a European economic organization. Thus, the industrial equipping of Africa tends to transform the native artisanry, because the industrial establishments of the European type require a specialized [77] labor force that will adopt French work methods and economic life. It is in this way that the railroad yards at Thiès were created, as well as the industries of construction in solid materials, the quarries, the brickyards, the limeworks of Bamako, Mopti, and Ségou, and the food industries: icehouses, waterworks, the cotton gins of Koutiala and Sikasso. Industrialization is just beginning in the Bambara country, but the European form of economic organization has spread widely even where native work methods exist, leading, as a result, to economic individualism.

b. Development of Large-scale Agricultural Exploitation

177 241 473 Agricultural exploitation itself has been radically transformed in certain regions. Side by side with food crops which vary according to the needs of the community and which are cultivated in the traditional extensive manner, an intensive monoculture of money crops has developed with peanuts, rice, cotton, etc. This has been made possible by modern techniques of agricultural exploitation: experimental gardens, centers of scientific research, creation of pilot sections, scientific management of the plains. This development has led to the creation of such organizations as the C.G.O.T. in Casamance, a company for diversified economy whose initial capital was underwritten by the State and by professional processors of fatty substances. This company clears and de-stumps the great forest brush with heavy tractors, bulldozers, treedozers, and strumpers [de-stumpers ?] in

order to cultivate peanuts, sunflowers, millet, and cotton. Every three years, the company distributes green manure crops in order to reconstitute the soil's humus. Moreover, the company has created veritable villages to house its technicians and the colonists.

Other organizations, such as the Niger Office, have charge of the basic water control of the central delta (dams, large canals). Thanks to the creation of a network of waterways, to the clearing and de-stumping of lands, and to the development of general equipment (processing factories, workshops, stores, dwellings, road network), the end of 1949 saw 11,000 hectares of rice fields, with a yield of 18 quintals of paddy and a commercial production of 8,000 metric tons of husked rice. Six thousand hectares have been prepared either for growing cotton (2,000 hectares), for growing rice for food (1,000 hectares), or for lying fallow (3,000 hectares). These fields permit the exportation of 360 metric tons of cotton fiber. Twenty-two thousand persons have been settled as colonists. Finally, let us note that the F.I.D.E.S. by its financial support has permitted the development of peanut cultivation in Senegal, of rice in Guinea and the Sudan, of karite in Upper Volta, as well as the creation of several technical schools.

c. Social Consequences

This technical evolution has profound repercussions on the native way of life. We notice the same change in the Bambara peasant as in the Bambara artisan. The large united family which was [78] the cornerstone of agricultural technique tends to split up more and more, even in the regions where the traditional farming methods are still used. The family field, a great deal less carefully tended than in the past, gives way in importance to the individual's field. Moreover, the family field traditionally was at the end of a path bordered by small individual fields where each peasant went to work for himself before and after the collective labor. Today, we see the creation of individual fields in the brush far from the path which leads from the village to the family field, clearly indicating the desire of the individual to separate himself from the large family and to escape the control of the farming chief in order to realize personal benefits for himself, not subject to family inspection.

3: Paques--42 S-4 (no date) 1954 FA8 Bambara FA8

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Production figures
furnished by the Bougouni circle for the year 1950

Crop	Area planted	Average yield per hectare in metric tons	Quantities harvested in metric tons	Metric tons needed for seed	For Food	Available for sale
Millet	60,000	0.500	30,000	1,200	27,000	2,000
Rice	1,500	0.700	1,000	100	800	100
Peanuts	2,500	0.600	1,500	150	350	1,000
Maize	4,000	0.700	2,800	50	2,750	
Fonio	1,000	0.700	700	100	600	
Manioc, sweet potatoes, yams	300	2.000	600		600	
Beans and peas	100	0.800	80	10	70	

Area cultivated .. 69,400

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Industrial Crops

Crop	Hectares planted	Average yield per hectare	Quantities harvested in metric tons	Local Consumption	Seed	Available for sale
Peanuts	2,500	0.600	1,500	150	350	1,000
Native cotton	500	0.150	75	75		
"N'Courala" cotton	60	0.200	12			
Tobacco	750	0.400	300	150		150
Dah[sic], sisal	insignificant					

The Société de Prevoyance [Welfare Society?] has stocked 600 groves with mango trees, cailcedra, and poincianas.

3: Paques--43 S-4 (no date) 1954 FA8 Bambara FA8

177 Finally, the breaking up of the family cell is manifest in the in-
516 creasing number of children who prefer to work as farm laborers far
241 from their home country rather than submit to the tutelage of the farming chief.

The economic transformation proceeds due to electrification
177 (regulation of the great falls near Conakry and those of Sotuba near
377 Bamako) and the creation, alongside the old strategic roads, of com-
489 mercial roads and bridges to facilitate shipping peanuts, rice, cotton, and millet. The ports and wharfs are being put in order, the railroad network being modernized (increasing the matériel, transforming beds and embankments, repairing the tracks, installing and extending yards, improving the depots, constructing stations, buffets, hotels, cheap housing for the employees). On the Niger, improvements are being made in the river ports of Koulikoro, Ségou, Mopti, Bamako, and Gao, and, on the Senegal, of Kayes and Saint-Louis.

177 Finally, the new economy is accompanied by social accomplishments in the fields of health, education, and urbanization.

d. Chambers of Commerce

Thus, two forms of economic organization exist side by side in Bambara country: on the one hand, the traditional and artisan native organization, and, on the other, the European organization which has shattered the ancient society and has put the local economy of the country within the framework of international economy.

177 But it is perhaps in the realm of commerce that the influence
441 of European methods has been most felt, particularly in the creation of Chambers of Commerce, Agriculture and Industry.

The creation of Chambers of Commerce dates from a decree of the Governor General in 1906. Members are elected for four years and are re-eligible. They are elected by an electoral college made up of the chiefs of French or African commercial establishments. The function of these Chambers is to give the administration advice and information when requested on any question of an economic nature.

The Chambers of Agriculture and Industry have substantially the same organization as the Chambers of Commerce, but in addition they are called on by the governors to group and codify the local customs [79] and usages of an agricultural character. These reports serve as the

b. Pottery

323 Pottery is entirely fashioned and fired by the women of the blacksmiths' caste, masters of the fire. The modelling is done in two ways, either by hollowing a mass of clay with the aid of a cylindrical stone (2), or by rolling a cylinder of clay around a mold. The

2. M. Griaule, Masques dogons [Dogon Masks].

[534]

decoration is generally a double line of chevrons imprinted around the neck and the foot by the potter's twisted bracelet. The firing is done in the open air over a wood fire.

c. The Forge

326 Wood, iron, metals in general, are fashioned by the blacksmiths. The blacksmith's workshop and the objects he makes are simple, but they are rich in symbolic representations. "The forge represents the artisan: the furnace is his body, the bellows his testicles, the blast pipe his penis, the fire his head. When the red-hot iron is beaten by the hammer, which symbolizes the universe, the sparks are the lightning and the thunderbolt." (3) With his

3. G. Dieterlen, Essai sur la religion bambara [Essay on Bambara Religion].

rudimentary tools spread on the ground under a shelter, the artisan forges all farming instruments, the principal one being the hoe. The 412 hoe, [97] according to its shape, is considered to be male or female. 831 The female hoe has a short handle with an ovoid swelling at the end, [804] into which sticks the point of an iron triangle. The three sides of this triangle are three arcs of a circle; three, symbol of masculinity, represents here the clitoris, the male principle which sustains the [773 241] double, the dya, of the woman. (According to myth, it was with the aid of this part of the body that the first being of female sex inaugurated agricultural labors.) The male hoe has a slightly trapezoidal iron part which is attached to the handle in the same manner. The four sides symbolize the femininity of man sustained by the prepuce. Thus,

776 Most frequently these genii are given saraka, but a hen is sacri-
782 ficed each time the wells are cleaned: it is in good taste to do so,
823 and few villages depart from the rule. Once a year a public sacrifice is offered to them, with a degree of formality that varies according to whether the sacrificer is merely the head of a family, the head of a quarter, or the head of the village. Since the women spend a good half of their lives around the wells, they are almost everywhere the ones who provide the materials for the sacrifice.

5. Genii of the Crops

776 When planting time comes, the Bambara, who are farmers above
241 all, blossom out with sacrifices and redden just about everything with
782 blood. The head of the family does not forget the genie of the seed. He offers it a saraka at home and sometimes a sacrifice, and unless he is very old and helpless he appears at the field on the day when the first pinch of seed is consigned to the earth. Before /91/ the /sowing/ is begun a hen's blood must be offered to the genie of fertility, which is responsible for watching over the seed and causing it to sprout and grow, and it is he that makes this offering, unless he has delegated this duty to his eldest son or his brother (the one next after him in seniority).

The departure for the field at planting time has its own unique characteristics. A child (if there is one in the family, obviously) is given the gourd (1) containing the seed, and in the name of the genie

1. A pumpkin cut in two, emptied and dried in the sun.

the father gives him orders and admonitions. On the way out of the hut the child pays his respects to the shades of his ancestors by placing the gourd on the threshold, and leaves quickly, proud as Artaban. He must be careful not to stop on the way unless he has to, and, above all, he must keep silent so that the spirits that fly here, there, and everywhere remain ignorant of what he is carrying and cannot attack the seeds in the millet grain. Anyone who talks runs a grave

776 risk of spoiling the crop -- o be gno soun tigné ("it destroys the vitality
241 of the seed of the millet grain").
782 These genii do not have special festivals in the course of the year. Their priests, the heads of families, offer them saraka and sacrifices at planting time, and some of them sacrifice a hen in the corner of the field while the crop is sprouting and growing, but that is all.

6. Genii Protectors of Children

89 It is not until circumcision that Bambara children take part in
794 the mysteries of pagan worship, but they are early prepared for it so
776 that they may be introduced to the law of secrecy which they must strictly adhere to later when they are initiates of an occult sect. At about the age of seven or eight years, they become affiliated with an association worshipping the genii responsible for protecting them. All these sects are alike, differing only in name. On the banks of the
[85] Bani and the Niger, the object of worship is the tauri (toad or frog), and the croaking of this animal is imitated in their festivals; some villages have the djara (lion) and imitate its roar by whirling their
[534] slingshots, small boards four fingers wide and one to two centimeters long, attached to the end of a string. The most widespread /children's
[84] genie/ is n'tomo, which undoubtedly gets its name from the tree in which it lives (the /92/ jujube tree, n'tomo). It makes children hale and hearty, preserves them from sickness, defends them against the invisible little creatures of the bush, against spells and sorcery, and makes them strong, steadfast, and impervious to suffering.

The confraternity of the n'tomo is modeled after that of the boli. (This is true of both kinds -- for there are two; a white costume is worn to the dance for n'tomo djé and a black costume for n'tomo fign). In order to be admitted one must offer a hen to the child who is head of the n'tomo (the n'tomotigi), prostrate oneself before the tree of the genie, and swear to keep the secret and never to speak of the n'tomo to the uninitiated, especially not to little girls.

you accept it at my hands." If one of the pieces falls with the pulp on top and the other onto the pulp, there is an affirmative answer from the dasiri. The sacrificer bites the kola nut, cuts out with his teeth the piece that contains the seed, and, when he has chewed it a moment, spits the remains onto the bark of the fetish tree.

This procedure, wholly dependent on chance, is often long, for the pieces of kola nut do not always fall in the desired position at the first try. After three failures the crowd ceases to restrain itself and, with gestures and voice, each person intercedes for the unfortunate one. The cries do not stop until the kola nut gives the answer, "I accept and am no longer angry!"

The Semioccult Society of the Koré, or Koté

The Bambara are, above all, farmers, and cultivating a field has such great importance in their eyes that for them it alone really deserves the name of work. One who does not handle the pick may be active and skillful, but he is not a worker and one does not say of him: "A bi ajaké, he is working." But will the seed that /122/ they consign to the earth in the winter sprout, grow, become large, and ripen? However little one knows the Bambara, one can imagine and understand their fears, for they are surrounded by a band of malicious spirits ever ready to pounce on them. Therefore they heed protectors and helpers, and at planting time they offer something to all, even to the rain. The main fetish to which they appeal is the koté, or koré, which lives in a tree in the middle of a small grove.

In order to be present at the sacrifices to the koté, it is necessary to be initiated and to know the password. This initiation, may take place by day, but at least in Bani country, it usually takes place at nightfall when the setting sun takes on a bloody hue. The sons of the genie go in procession to the sacred grove. The korétigi, the priest, opens the march, preceded by musicians who beat the denouba (1) and the kingé (2). With him are the kâra ma ("man of